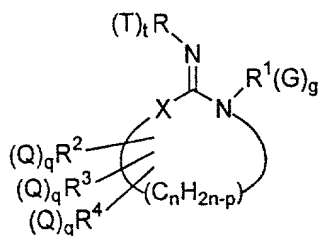


We claim:

1. A compound having the formula



wherein

R is

aryl of 6 - 14 carbons; or

heteroaryl of 3 - 10 carbons and containing 1 - 3 heteroatoms selected from the group consisting of N, O, and S, with the proviso that R is other than benzofuran or benzothiophene;

R¹ is

alkyl of 1 - 10 carbons;

cycloalkyl of 3 - 12 carbons and containing 1 - 3 rings;

heterocycloalkyl of 4 - 7 carbons and containing 1 - 3 rings and 1 - 3 heteroatoms selected from the group consisting of N, O, and S;

alkenyl of 2 - 10 carbons;

cycloalkenyl of 5 - 12 carbons and containing 1 - 3 rings; or

alkynyl of 3 - 10 carbons;

R², R³, and R⁴ are independently selected from the group consisting of

H;

alkyl of 1 - 10 carbons;

cycloalkyl of 3 - 12 carbons;

alkenyl of 2 - 10 carbons;

cycloalkenyl of 5 - 12 carbons;

aryl of 6 - 13 carbons;

heteroaryl of 3 - 9 carbons and containing 1 - 3 heteroatoms selected from the group consisting of N, O, and S;

CO₂R⁵; wherein

R⁵ is alkyl of 1 - 4 carbons, haloalkyl of 1 - 4 carbons, cycloalkyl of 3 - 6 carbons, or halocycloalkyl of 3 - 6 carbons;

halogen; and

=O, representing two of the groups R², R³, and R⁴;

X is O or S(O)_y ; wherein

y is 0, 1, or 2;

n is 2, 3, 4, or 5;

p is the sum of non-H substituents R², R³, and R⁴;

5 T is a substituent selected from the group consisting of

alkyl of 1 - 4 carbons;

alkoxy of 1 - 4 carbons;

aryl of 6 - 10 carbons;

CO₂H;

10 CO₂R⁵;

alkenyl of 2 - 4 carbons;

alkynyl of 2 - 4 carbons;

C(O)C₆H₅;

C(O)N(R⁶)(R⁷) ;wherein

15 R⁶ is H or alkyl of 1 - 5 carbons; and

R⁷ is H or alkyl of 1 - 5 carbons;

S(O)_yR⁸ ; wherein

y' is 1 or 2; and

R⁸ is alkyl of 1 - 5 carbons;

20 SO₂F;

CHO;

OH;

NO₂;

CN;

25 halogen;

OCF₃;

N-oxide;

O-C(R⁹)₂-O , the oxygens being connected to adjacent positions on R;

and wherein

30 R⁹ is H, halogen, or alkyl of 1 - 4 carbons;

C(O)NHC(O) , the carbons being connected to adjacent positions on

R; and

C(O)C₆H₄ , the carbonyl carbon and the ring carbon ortho to the
carbonyl being connected to adjacent positions on R;

35 t is 1 - 5;

provided that when substituent moiety T is alkyl of 1 - 4 carbons,
alkoxy of 1 - 4 carbons, aryl of 6 - 10 carbons, CO₂R⁵, alkenyl of 2 - 4
carbons, alkynyl of 2 - 4 carbons, C(O)C₆H₅, C(O)N(R⁶)(R⁷), S(O)_yR⁸,

O-C(R³)₂-O , or C(O)C₆H₄ , then T optionally may bear secondary substituents selected from the group consisting of alkyl of 1 - 4 carbons; alkoxy of 1 - 4 carbons; CO₂R⁵; CO₂H; C(O)N(R⁶)(R⁷); CHO; OH; NO₂; CN; halogen; S(O)_yR⁸; or =O, the number of said secondary substituents being 1 or 2 with the exception of halogen, which may be employed up to the perhalo level;

G is a substituent selected from the group consisting of

halogen;

OH;

OR⁵;

=O , representing two substituents G;

alkyl of 1 - 4 carbons;

alkenyl of 1 - 4 carbons;

cycloalkyl of 3 - 7 carbons;

heterocycloalkyl of 3 - 5 carbons and 1 - 3 heteroatoms selected from the group consisting of N, O, and S;

cycloalkenyl of 5 - 7 carbons;

heterocycloalkenyl of 4 - 6 carbons and 1 - 3 heteroatoms selected from the group consisting of N, O, and S;

CO₂R⁵;

C(O)N(R⁶)(R⁷);

aryl of 6 - 10 carbons;

heteroaryl of 3 - 9 carbons and 1 - 3 heteroatoms selected from the group consisting of N, O, and S;

NO₂;

CN;

S(O)_yR⁸;

SO₃R⁸; and

SO₂N(R⁶)(R⁷);

g is 0 - 4, with the exception of halogen, which may be employed up to the perhalo level;

provided that when substituent G is alkyl of 1 - 4 carbons, alkenyl of 1 - 4 carbons, cycloalkyl of 3 - 7 carbons, heterocycloalkyl of 3 - 5 carbons, cycloalkenyl of 5 - 7 carbons, or heterocycloalkenyl of 4 - 6 carbons, then G optionally may bear secondary substituents of halogen up to the perhalo level; and when substituent G is aryl or heteroaryl, then G optionally may bear secondary substituents independently selected from the group consisting of alkyl of 1 - 4 carbons and

halogen, the number of said secondary substituents being up to 3 for alkyl moieties, and up to the perhalo level for halogen;

Q is a substituent selected from the group consisting of

- alkyl of 1 - 4 carbons;
- 5 haloalkyl of 1 - 4 carbons;
- cycloalkyl of 3 - 8 carbons;
- alkoxy of 1 - 8 carbons;
- alkenyl of 2 - 5 carbons;
- cycloalkenyl of 5 - 8 carbons;
- 10 aryl of 6 - 10 carbons;
- heteroaryl of 3 - 9 carbons and containing 1 - 3 heteroatoms selected from the group consisting of N, O, and S;
- CO_2R^j ;
- $=\text{O}$, representing two substituents Q;
- 15 OH;
- halogen;
- $\text{N}(\text{R}^6)(\text{R}^7)$;
- $\text{S}(\text{O})_y\text{R}^8$;
- SO_3R^8 ; and
- 20 $\text{SO}_2\text{N}(\text{R}^6)(\text{R}^7)$;

q is 0 - 4

- provided that when substituent Q is aryl or heteroaryl, then Q optionally may bear secondary substituents independently selected from the group consisting of alkyl of 1 - 4 carbons and halogen, the number of said secondary substituents being up to 3 for alkyl moieties and up to the perhalo level for halogen; and

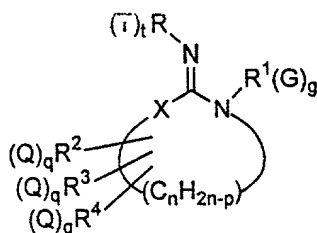
with the further provisos that:

- a) two of $(\text{Q})_q\text{R}^1$, $(\text{Q})_q\text{R}^2$, $(\text{Q})_q\text{R}^3$, and $(\text{Q})_q\text{R}^4$ may be joined, and taken together with the atom(s) to which they are attached, form a spiro or nonspiro nonaromatic ring of 3 - 8 members containing 0 - 2 heteroatoms selected from the group consisting of N, O, and S;
- 30 b) when $n = 2$ or 3, at least one of R^2 , R^3 , and R^4 is other than H;
- c) when $n = 2$, and $\text{X} = \text{O}$, if $t = 1$, then T is selected from the list of substituents T above excepting alkyl, and the 4-position of the 1,3-oxazolidine ring must bear a substituent;
- 35 d) when $n = 3$ and $\text{X} = \text{O}$, if t is equal to or greater than 1, then at least one T is selected from the list of substituents T above, excepting alkyl and alkoxy;

- e) when $n = 2$ or 3 and $X = O$ or S , then the sum of non-hydrogen atoms in R^1 , R^2 , R^3 , and R^4 is at least 5;
- f) when $n = 2$, $X = O$, the 4-position of the 1,3-oxazolidine ring bears a carbonyl group, and R bears halogen at its 2- and 4- positions, then the 5-position of R bears H;
- g) when $n = 2$ and $X = O$, the 4-position of the 1,3-oxazolidine ring may bear a carbonyl only if the 5-position of said ring bears at least one non-H substituent;
- h) when $n = 2$, $X = S(O)_y$, the 4-position of the 1,3-thiazolidine ring bears a carbonyl group, R^1 is a substituted methyl group, and G is a phenyl group, then said phenyl group bears a secondary substituent;
- i) when $n = 4$, $X = S$, and G is CO_2R^5 , then R^5 contains at least two carbons;

and pharmaceutically acceptable salts thereof.

2. A compound having the formula



wherein

20

R is

phenyl; or
pyridyl;

R^1 is

25

alkyl of 1 - 10 carbons;
cycloalkyl of 3 - 12 carbons and containing 1 - 3 rings;
alkenyl of 2 - 10 carbons;
cycloalkenyl of 5 - 12 carbons and containing 1 - 3 rings; or
alkynyl of 3 - 10 carbons;

30

R^2 , R^3 , and R^4 are independently selected from the group consisting of
H;
alkyl of 1 - 10 carbons;
cycloalkyl of 3 - 12 carbons;
alkenyl of 2 - 10 carbons;

cycloalkenyl of 5 - 12 carbons; and

=O, representing two of the groups R^2 , R^3 , and R^4 ;

X is O or $S(O)_y$; wherein

y is 0, 1, or 2;

5 n is 2 or 3;

p is the sum of non-H substituents R^2 , R^3 , and R^4 ;

T is a substituent selected from the group consisting of

alkyl of 1 - 4 carbons;

alkoxy of 1 - 4 carbons;

10 alkenyl of 2 - 4 carbons;

alkynyl of 2 - 4 carbons;

NO_2 ;

CN; and

halogen;

15 t is 1 - 5;

provided that when substituent moiety T is alkyl of 1 - 4 carbons, alkoxy of 1 - 4 carbons, alkenyl of 2 - 4 carbons, or alkynyl of 2 - 4 carbons, then T optionally may bear secondary substituents selected from the group consisting of

20 alkyl of 1 - 4 carbons;

alkoxy of 1 - 4 carbons;

CO_2R^5 ; wherein

R^5 is alkyl of 1 - 4 carbons, haloalkyl of 1 - 4 carbons, cycloalkyl of 3 - 6 carbons, or halocycloalkyl of 3 - 6 carbons;

25

CO_2H ;

$C(O)N(R^6)(R^7)$; wherein

R^6 is H or alkyl of 1 - 5 carbons; and

R^7 is H or alkyl of 1 - 5 carbons;

30

CHO;

OH;

NO_2 ;

CN;

halogen;

35

$S(O)_yR^8$; wherein

R^8 is alkyl of 1 - 5 carbons; and

=O, representing two secondary substituents;

the number of said secondary substituents being 1 or 2 with the exception of halogen, which may be employed up to the perhalo level; G is a substituent selected from the group consisting of

5 halogen;
OR⁵;
alkyl of 1 - 4 carbons;
alkenyl of 1 - 4 carbons;
cycloalkyl of 3 - 7 carbons;
cycloalkenyl of 5 - 7 carbons;
10 aryl of 6 - 10 carbons; and
CN;

g is 0 - 4, with the exception of halogen, which may be employed up to the perhalo level;

15 provided that when substituent G is alkyl of 1 - 4 carbons, alkenyl of 1 - 4 carbons, cycloalkyl of 3 - 7 carbons, or cycloalkenyl of 5 - 7 carbons, then G optionally may bear secondary substituents of halogen up to the perhalo level; and when substituent G is aryl, then G optionally may bear secondary substituents independently selected from the group consisting of alkyl of 1 - 4 carbons and halogen, the number of said secondary substituents being up to 3 for alkyl moieties, and up to the perhalo level for halogen;

20 Q is a substituent selected from the group consisting of
alkyl of 1 - 4 carbons;
haloalkyl of 1 - 4 carbons;
25 cycloalkyl of 3 - 8 carbons;
alkoxy of 1 - 8 carbons;
alkenyl of 2 - 5 carbons;
cycloalkenyl of 5 - 8 carbons;
CO₂R⁵;
30 =O, representing two substituents Q;
OH;
halogen;
N(R⁶)(R⁷); and
S(O)_yR⁸;

35 q is 0 - 4;

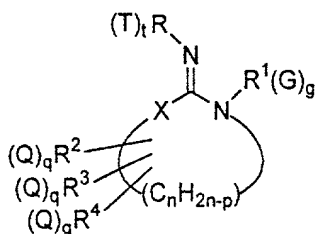
and

with the further provisos that:

- a) two of $(Q)_qR^1$, $(Q)_qR^2$, $(Q)_qR^3$, and $(Q)_qR^4$ may be joined, and taken together with the atom(s) to which they are attached, form a spiro or nonspiro nonaromatic ring of 3 - 8 members containing 0 - 2 heteroatoms selected from the group consisting of N, O, and S;
- 5 b) when $n = 2$ or 3, at least one of R^2 , R^3 , and R^4 is other than H;
- c) when $n = 2$, and $X = O$, if $t = 1$, then T is selected from the list of substituents T above excepting alkyl, and the 4-position of the 1,3-oxazolidine ring must bear a substituent;
- 10 d) when $n = 3$ and $X = O$, if t is equal to or greater than 1, then at least one T is selected from the list of substituents T above, excepting alkyl and alkoxy;
- e) when $n = 2$ or 3 and $X = O$ or S, then the sum of non-hydrogen atoms in R^1 , R^2 , R^3 , and R^4 is at least 5;
- 15 f) when $n = 2$, $X = O$, the 4-position of the 1,3-oxazolidine ring bears a carbonyl group, and R bears halogen at its 2- and 4- positions, then the 5-position of R bears H;
- g) when $n = 2$ and $X = O$, the 4-position of the 1,3-oxazolidine ring may bear a carbonyl only if the 5-position of said ring bears at least one non-H substituent; and
- 20 h) when $n = 2$, $X = S(O)_y$, the 4-position of the 1,3-thiazolidine ring bears a carbonyl group, R^1 is a substituted methyl group, and G is a phenyl group, then said phenyl group bears a secondary substituent;

and pharmaceutically acceptable salts thereof.

25 3. A compound having the formula



wherein

R is

30 phenyl; or
pyridyl;

R^1 is

alkyl of 1 - 10 carbons;

- cycloalkyl of 3 - 12 carbons and containing 1 - 3 rings;
 alkenyl of 2 - 10 carbons; or
 cycloalkenyl of 5 - 12 carbons and containing 1 - 3 rings;
 R^2 , R^3 , and R^4 are independently selected from the group consisting of
- 5 H;
 alkyl of 1 - 10 carbons;
 cycloalkyl of 3 - 12 carbons;
 alkenyl of 2 - 10 carbons; and
 cycloalkenyl of 5 - 12 carbons;
- 10 X is O or $S(O)_y$; wherein
 y is 0, 1, or 2;
 n is 2 or 3;
 p is the sum of non-H substituents R^2 , R^3 , and R^4 ;
 T is a substituent selected from the group consisting of
- 15 alkyl of 1 - 4 carbons;
 alkenyl of 2 - 4 carbons;
 NO_2 ;
 CN; and
 halogen;
- 20 t is 1 - 5;
 provided that when substituent moiety T is alkyl of 1 - 4 carbons, or
 alkenyl of 2 - 4 carbons, then T optionally may bear secondary
 substituents selected from the group consisting of
- 25 alkyl of 1 - 4 carbons;
 alkoxy of 1 - 4 carbons;
 CO_2R^5 ; wherein
 R^5 is alkyl of 1 - 4 carbons, haloalkyl of 1 - 4 carbons,
 cycloalkyl of 3 - 6 carbons, or halocycloalkyl of
 3 - 6 carbons;
- 30 CO_2H ;
 $C(O)N(R^6)(R^7)$; wherein
 R^6 is H or alkyl of 1 - 5 carbons; and
 R^7 is H or alkyl of 1 - 5 carbons;
- 35 CHO;
 OH;
 NO_2 ;
 CN;
 halogen;

$S(O)_yR^8$; wherein

R^8 is alkyl of 1 - 5 carbons; and

$=O$;

the number of said secondary substituents being 1 or 2 with the exception of halogen, which may be employed up to the perhalo level;

G is a substituent selected from the group consisting of

halogen;

alkyl of 1 - 4 carbons;

alkenyl of 1 - 4 carbons;

cycloalkyl of 3 - 7 carbons;

cycloalkenyl of 5 - 7 carbons; and

aryl of 6 - 10 carbons;

g is 0 - 4, with the exception of halogen, which may be employed up to the perhalo level;

provided that when substituent G is alkyl of 1 - 4 carbons, alkenyl of 1 - 4 carbons, cycloalkyl of 3 - 7 carbons, or cycloalkenyl of 5 - 7 carbons, then G optionally may bear secondary substituents of halogen up to the perhalo level; and when substituent G is aryl, then G optionally may bear secondary substituents independently selected from the group consisting of alkyl of 1 - 4 carbons and halogen, the number of said secondary substituents being up to 3 for alkyl moieties, and up to the perhalo level for halogen;

Q is a substituent selected from the group consisting of

alkyl of 1 - 4 carbons;

haloalkyl of 1 - 4 carbons;

cycloalkyl of 3 - 8 carbons;

alkoxy of 1 - 8 carbons;

alkenyl of 2 - 5 carbons;

cycloalkenyl of 5 - 8 carbons; and

halogen;

q is 0 - 4;

and

with the further provisos that:

- a) two of $(Q)_qR^1$, $(Q)_qR^2$, $(Q)_qR^3$, and $(Q)_qR^4$ may be joined, and taken together with the atom(s) to which they are attached, form a spiro or nonspiro nonaromatic ring of 3 - 8 members containing 0 - 2 heteroatoms selected from the group consisting of N, O, and S;
- b) when $n = 2$ or 3, at least one of R^2 , R^3 , and R^4 is other than H;

- c) when $n = 2$, and $X = O$, if $t = 1$, then T is selected from the list of substituents T above excepting alkyl, and the 4-position of the 1,3-oxazolidine ring must bear a substituent;
- d) when $n = 3$ and $X = O$, if t is equal to or greater than 1, then at least one T is selected from the list of substituents T above, excepting alkyl;
- e) when $n = 2$ or 3 and $X = O$ or S , then the sum of non-hydrogen atoms in R^1 , R^2 , R^3 , and R^4 is at least 5;

and pharmaceutically acceptable salts thereof.

4. A compound of claim 1 selected from the group consisting of:
- (4*S*)-2-(2-methyl-4-nitrophenylimino)-3-isobutyl-4-isopropyl-1,3-thiazolidine;
- (4*S*)-2-(2-methyl-4-nitrophenylimino)-3,4-diisobutyl-1,3-thiazolidine;
- (4*S*)-2-(2-methyl-4-nitrophenylimino)-3-isobutyl-4-(trifluoromethyl)-1,3-thiazolidine;
- (4*S*)-2-(2-methyl-4-nitrophenylimino)-3-cyclopentyl-4-isobutyl-1,3-thiazolidine;
- (4*S*)-2-(2-methyl-4-nitrophenylimino)-3-isobutyl-4-isopropyl-1,3-thiazolidine;
- (4*S*)-2-(2-methyl-4-nitrophenylimino)-3-cyclopentyl-4-isopropyl-1,3-thiazolidine;
- (4*R*)-2-(2-methyl-4-nitrophenylimino)-3-isobutyl-4-isopropyltetrahydro-2*H*-1,3-thiazine;
- (4*S*)-2-(4-nitro-1-naphthylimino)-3-cyclopentyl-4-((1*R*)-1-hydroxyethyl)-1,3-thiazolidine;
- 2-(4-cyano-2-methylphenylimino)-1-cyclopentyl-3-thia-1-azaspiro[4.4]nonane;
- 2-(4-cyano-2-ethylphenylimino)-1-cyclopentyl-3-thia-1-azaspiro[4.4]nonane;
- 2-(4-cyanophenylimino)-1-cyclopentyl-3-thia-1-azaspiro[4.4]nonane;
- 2-(4-cyano-2-methylphenylimino)-1-isobutyl-3-thia-1-azaspiro[4.4]nonane;
- 2-(4-cyano-2,3-dimethylphenylimino)-1-isobutyl-3-thia-1-azaspiro[4.4]nonane;
- 2-(4-cyano-2-methylphenylimino)-1-(1-ethyl-1-propyl)-3-thia-1-azaspiro[4.4]nonane;
- 2-(4-cyano-1-naphthylimino)-1-isobutyl-3-thia-1-azaspiro[4.4]nonane;
- 2-(2-methyl-4-nitrophenylimino)-1-(prop-2-en-1-yl)-3-thia-1-azaspiro[4.4]nonane;

- 2-(2-methyl-4-nitrophenylimino)-1-isopropyl-3-thia-1-azaspiro[4.4]nonane;
 2-(2-methyl-4-nitrophenylimino)-1-isobutyl-3-thia-1-azaspiro[4.4]nonane;
 2-(2-methyl-4-nitrophenylimino)-1-cyclopentyl-3-thia-1-azaspiro[4.4]nonane;
 2-(3-methyl-4-nitrophenylimino)-1-cyclopentyl-3-thia-1-azaspiro[4.4]nonane;
 5 2-(2-methyl-4-nitrophenylimino)-1-cyclohexyl-3-thia-1-azaspiro[4.4]nonane;
 2-(2,3-dimethyl-4-nitrophenylimino)-1-cyclopentyl-3-thia-1-
 azaspiro[4.4]nonane; and
 2-(4-cyano-2,3-dimethylphenylimino)-1-cyclopentyl-3-thia-1-
 azaspiro[4.4]nonane.

10

5. A compound of claim 1 selected from the group consisting of:
 2-(2-methyl-4-nitrophenylimino)-3-isobutyl-1,3-thiazolidin-4-one;
 2-(3-methyl-4-nitrophenylimino)-3-isobutyl-1,3-thiazolidin-4-one;
 2-(2-methyl-4-nitrophenylimino)-3-benzyl-1,3-thiazolidin-4-one;
 15 2-(3-methyl-4-nitrophenylimino)-3-benzyl-1,3-thiazolidin-4-one;
 2-(2-methyl-4-nitrophenylimino)-3-(2-methyl-1-butyl)-1,3-thiazolidin-4-one;
 2-(3-methyl-4-nitrophenylimino)-3-(2-methyl-1-butyl)-1,3-thiazolidin-4-one;
 2-(2-methyl-4-nitrophenylimino)-3-(1-cyclohexyl-1-ethyl)-1,3-thiazolidin-4-
 one;
 20 2-(3-methyl-4-nitrophenylimino)-3-(1-cyclohexyl-1-ethyl)-1,3-thiazolidin-4-
 one;
 2-(2-methyl-4-nitrophenylimino)-3-(2-ethyl-1-butyl)-1,3-thiazolidin-4-one;
 2-(2-methyl-4-nitrophenylimino)-3-isobutyl-5-methylene-1,3-thiazolidin-4-
 one; and
 25 2-(2-methyl-4-nitrophenylimino)-3-isobutyl-5-methyl-1,3-thiazolidin-4-one.

25

6. A compound of claim 1 selected from the group consisting of:
 2-(2-methyl-4-nitrophenylimino)-3-isobutyl-4,4-dimethyl-1,3-oxazolidine;
 1-cyclopentyl-2-(4-cyano-2-ethylphenylimino)-3-oxa-1-azaspiro[4.4]nonane;
 30 1-cyclopentyl-2-(2-methyl-4-nitrophenylimino)-3-oxa-1-azaspiro[4.4]nonane;
 and
 1-cyclohexyl-2-(2-methyl-4-nitrophenylimino)-3-oxa-1-azaspiro[4.4]nonane.

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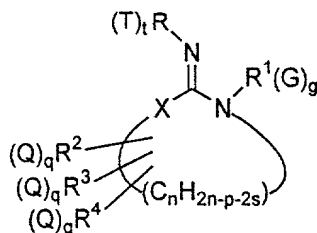
7. A pharmaceutical composition comprising a compound of claim 1, 2, 3, 4, 5
 35 or 6, and a pharmaceutically acceptable carrier.

35

8. A method of treating a mammal by administering to said mammal an
 effective amount of a compound for:

- A1) enhancement of bone formation in bone weakening diseases for the treatment or prevention of osteopenia or osteoporosis;
- A2) enhancement of fracture healing;
- B1) use as a female contragestive agent;
- 5 B2) prevention of endometrial implantation;
- B3) induction of labor;
- B4) treatment of luteal deficiency;
- B5) enhanced recognition and maintenance of pregnancy;
- B6) counteracting of preeclampsia, eclampsia of pregnancy, and preterm labor;
- 10 B7) treatment of infertility, including promotion of spermatogenesis, induction of the acrosome reaction, maturation of oocytes, or in vitro fertilization of oocytes;
- C1) treatment of dysmenorrhea;
- C2) treatment of dysfunctional uterine bleeding;
- 15 C3) treatment of ovarian hyperandrogynism;
- C4) treatment of ovarian hyperaldosteronism;
- C5) alleviation of premenstrual syndrome and of premenstrual tension;
- C6) alleviation of perimenstrual behavior disorders;
- C7) treatment of climacteric disturbance, including menopause transition, mood
- 20 changes, sleep disturbance, and vaginal dryness;
- C8) enhancement of female sexual receptivity and male sexual receptivity;
- C9) treatment of post menopausal urinary incontinence;
- C10) improvement of sensory and motor functions;
- C11) improvement of short term memory;
- 25 C12) alleviation of postpartum depression;
- C13) treatment of genital atrophy;
- C14) prevention of postsurgical adhesion formation;
- C15) regulation of uterine immune function;
- C16) prevention of myocardial infarction;
- 30 D1) hormone replacement;
- E1) treatment of cancers, including breast cancer, uterine cancer, ovarian cancer, and endometrial cancer;
- E2) treatment of endometriosis;
- E3) treatment of uterine fibroids;
- 35 F1) treatment of hirsutism;
- F2) inhibition of hair growth;
- G1) activity as a male contraceptive;
- G2) activity as an abortifacient; and

- H1) promotion of mylin repair;
wherein said compound has the general formula



wherein

5

R is

aryl of 6 - 14 carbons; or
heteroaryl of 3 - 10 carbons and containing 1 - 3 heteroatoms selected
from the group consisting of N, O, and S, with the proviso that
R is other than benzofuran or benzothiophene;

10

R¹ is

alkyl of 1 - 10 carbons;
cycloalkyl of 3 - 12 carbons and containing 1 - 3 rings;
heterocycloalkyl of 4 - 7 carbons and containing 1 - 3 rings and 1 - 3
heteroatoms selected from the group consisting of N, O, and S;
15 aryl of 6 - 10 carbons;
heteroaryl of 3 - 9 carbons and containing 1 - 3 rings and 1 - 3
heteroatoms selected from the group consisting of N, O, and S;
alkenyl of 2 - 10 carbons;
cycloalkenyl of 5 - 12 carbons and containing 1 - 3 rings; or
20 alkynyl of 3 - 10 carbons;

R², R³, and R⁴ are independently selected from the group consisting of
H;

25

alkyl of 1 - 10 carbons;
cycloalkyl of 3 - 12 carbons;
alkenyl of 2 - 10 carbons;
cycloalkenyl of 5 - 12 carbons;
aryl of 6 - 13 carbons;
heteroaryl of 3 - 9 carbons and containing 1 - 3 heteroatoms selected
from the group consisting of N, O, and S;

30

CO₂R⁵; wherein

R⁵ is alkyl of 1 - 4 carbons, haloalkyl of 1 - 4 carbons,
cycloalkyl of 3 - 6 carbons, or halocycloalkyl of 3 - 6
carbons;

halogen; and

=O, representing two of the groups R^2 , R^3 , and R^4 ;

X is O or $S(O)_y$; wherein

y is 0, 1, or 2;

5 n is 2, 3, 4, or 5;

p is the sum of non-H substituents R^2 , R^3 , and R^4 ;

s represents the number of double bonds in the ring, and is 0, 1, or 2;

T is a substituent selected from the group consisting of

alkyl of 1 - 4 carbons;

10 alkoxy of 1 - 4 carbons;

aryl of 6 - 10 carbons;

CO_2H ;

CO_2R^5 ;

alkenyl of 2 - 4 carbons;

15 alkynyl of 2 - 4 carbons;

$C(O)C_6H_5$;

$C(O)N(R^6)(R^7)$; wherein

R^6 is H or alkyl of 1 - 5 carbons; and

R^7 is H or alkyl of 1 - 5 carbons;

20 $S(O)_{y'}R^8$; wherein

y' is 1 or 2; and

R^8 is alkyl of 1 - 5 carbons;

SO_2F ;

CHO;

25 OH;

NO_2 ;

CN;

halogen;

OCF_3 ;

30 N-oxide;

$O-C(R^9)_2-O$, the oxygens being connected to adjacent positions on R;
and wherein

R^9 is H, halogen, or alkyl of 1 - 4 carbons;

$C(O)NHC(O)$, the carbons being connected to adjacent positions on R; and

35 $C(O)C_6H_4$, the carbonyl carbon and the ring carbon ortho to the
carbonyl being connected to adjacent positions on R;

t is 1 - 5;

- provided that when substituent moiety T is alkyl of 1 - 4 carbons; alkoxy of 1 - 4 carbons; aryl of 6 - 10 carbons; CO_2R^5 ; alkenyl of 2 - 4 carbons; alkynyl of 2 - 4 carbons; $\text{C}(\text{O})\text{C}_6\text{H}_5$; $\text{C}(\text{O})\text{N}(\text{R}^6)(\text{R}^7)$; $\text{S}(\text{O})_y\text{R}^8$; $\text{O}-\text{C}(\text{R}^9)_2-\text{O}$, or $\text{C}(\text{O})\text{C}_6\text{H}_4$, then T optionally may bear secondary substituents selected from the group consisting of alkyl of 1 - 4 carbons; alkoxy of 1 - 4 carbons; CO_2R^5 ; CO_2H ; $\text{C}(\text{O})\text{N}(\text{R}^6)(\text{R}^7)$; CHO ; OH ; NO_2 ; CN ; halogen; $\text{S}(\text{O})_y\text{R}^8$; or $=\text{O}$, the number of said secondary substituents being 1 or 2 with the exception of halogen, which may be employed up to the perhalo level;
- 5
- 10 G is a substituent selected from the group consisting of
 halogen;
 OH ;
 OR^5 ;
 $=\text{O}$, representing two substituents G;
- 15 alkyl of 1 - 4 carbons;
 alkenyl of 1 - 4 carbons;
 cycloalkyl of 3 - 7 carbons;
 heterocycloalkyl of 3 - 5 carbons and 1 - 3 heteroatoms selected from
 the group consisting of N, O, and S;
- 20 cycloalkenyl of 5 - 7 carbons;
 heterocycloalkenyl of 4 - 6 carbons and 1 - 3 heteroatoms selected
 from the group consisting of N, O, and S;
 CO_2R^5 ;
 $\text{C}(\text{O})\text{N}(\text{R}^6)(\text{R}^7)$;
- 25 aryl of 6 - 10 carbons;
 heteroaryl of 3 - 9 carbons and 1 - 3 heteroatoms selected from the
 group consisting of N, O, and S;
 NO_2 ;
 CN ;
- 30 $\text{S}(\text{O})_y\text{R}^8$;
 SO_3R^8 ; and
 $\text{SO}_2\text{N}(\text{R}^6)(\text{R}^7)$;
- g is 0 - 4, with the exception of halogen, which may be employed up to the
 perhalo level;
- 35 provided that when substituent G is alkyl of 1 - 4 carbons, alkenyl of 1
 - 4 carbons, cycloalkyl of 3 - 7 carbons, heterocycloalkyl of 3 - 5
 carbons, cycloalkenyl of 5 - 7 carbons, or heterocycloalkenyl of 4 - 6
 carbons, then G optionally may bear secondary substituents of halogen

up to the perhalo level; and when substituent G is aryl or heteroaryl, then G optionally may bear secondary substituents independently selected from the group consisting of alkyl of 1 - 4 carbons and halogen, the number of said secondary substituents being up to 3 for alkyl moieties, and up to the perhalo level for halogen;

Q is a substituent selected from the group consisting of
 alkyl of 1 - 4 carbons;
 haloalkyl of 1 - 4 carbons;
 cycloalkyl of 3 - 8 carbons;
 alkoxy of 1 - 8 carbons;
 alkenyl of 2 - 5 carbons;
 cycloalkenyl of 5 - 8 carbons;
 aryl of 6 - 10 carbons;
 heteroaryl of 3 - 9 carbons and containing 1 - 3 heteroatoms selected from the group consisting of N, O, and S;
 CO_2R^1
 $=\text{O}$. representing two substituents O;
 OH;
 halogen;
 $\text{N}(\text{R}^6)(\text{R}^7)$;
 $\text{S}(\text{O})_y\text{R}^8$;
 SO_3R^8 ; and
 $\text{SO}_2\text{N}(\text{R}^6)(\text{R}^7)$;

q is 0 - 4

provided that when substituent Q is aryl or heteroaryl, then Q optionally may bear secondary substituents independently selected from the group consisting of alkyl of 1 - 4 carbons and halogen, the number of said secondary substituents being up to 3 for alkyl moieties and up to the perhalo level for halogen; and
 with the further proviso that two of $(\text{Q})_q\text{R}^1$, $(\text{Q})_q\text{R}^2$, $(\text{Q})_q\text{R}^3$, and $(\text{Q})_q\text{R}^4$ may be joined, and taken together with the atom(s) to which they are attached, form a spiro or nonspiro nonaromatic ring of 3 - 8 members containing 0 - 2 heteroatoms selected from the group consisting of N, O, and S;

and pharmaceutically acceptable salts thereof.

9. The method of claim 8 wherein said mammal is a human.